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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,453	12/14/2005	Michael Cornelis Van Beek	PHNL030694US	3081

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EXAMINER	
FERNANDEZ, KATHERINE L	
ART UNIT	**PAPER NUMBER**
3768	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/560,453	VAN BEEK, MICHAEL CORNELIS	
	Examiner	Art Unit	
	KATHERINE L. FERNANDEZ	3768	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 November 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 December 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Objections

1. Claims 1, 5-6 and 10-11 are objected to because of the following informalities:

With regards to claim 1, in line 1, claim 5, in line 4, claim 10, in line 3 and claim 11, in line 1, the phrase “in particular" renders the claims indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention.

With regards to claim 6, in line 7, it is suggested that the first occurrence of the word “the” be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1,4,6-9,11-14, 16, 18, 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Wada et al. (US Pub No. 2002/0145733).

An analysis apparatus and method for analyzing an object comprising: an excitation system for emitting an excitation beam (i.e. light beam; a first light source, UV light) to excite a target region (pg. 5, paragraph [0070], [0073]-[0079]); a monitoring system comprising a monitoring beam source (i.e. a second light source, visible light, different from the first light source) for emitting a

monitoring beam and an imaging system to image the target region (pg. 5, paragraph [0070], [0072]); a detection system for detecting scattered radiation from the target region generated by the excitation beam (pg. 5, paragraph [0070]; [0073]-[0079]); focusing means for focusing the excitation system, the monitoring system and the detection system on a detection plane in the target region (pg. 5, paragraph [0070]-[0072]; pg. 7, paragraph [0090]; see Figures 4-6); image processing means for processing an image of the detection plane acquired by the monitoring system to determine image characteristics of the image of the detection plane including at least one of a spatial dimension characteristic, a spatial frequency characteristic, and an image contrast characteristic, which indicates if the imaging system is focused on the object to be analyzed (pg. 5, paragraph [0071]-[0072]; pg. 8, paragraph [0094]); and auto-focusing means for controlling the focusing means to change the focusing of the monitoring system, the excitation system and the detection system based on the determined image characteristics, for controlling the monitoring system to image the target region and for controlling the image processing means to determine the image characteristics until the object substantially lies in the detection plane (pg. 5, paragraph [0070]-[0072]; pg. 7, paragraph [0090]; pg. 8, paragraphs [0094]-[0102]; see Figures 4-6). The image processing means are adapted for determining the maximum contrast present in a detected image and/or at one or more image portions corresponding to the object or object portions and wherein said auto-focusing means are adapted for controlling the focusing means to change the focusing of the monitoring system, the excitation system and the

detection system based on the determined image characteristics, for controlling the monitoring system to repeatedly image the target region and for controlling the image processing means to determine the image characteristics from a detected image until the determined contrast is maximally, the intensity of one or more pixels in the detected image show an extremum, the spread in intensity of pixels in the detected image is maximally, or until the average intensity difference between neighboring pixels in the detected image is maximally (pg. 5, paragraphs [0071]-[0072]; pg. 8, paragraphs [0094]-[0102]). Their system is adapted for use in the field of laser welding (pg. 1, paragraphs [0005]-[0006]).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 2, 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wada et al. as applied to claims 1, 11 and 12 above, and further in view of Olszak (US Pub No. 2004/0223632).

As discussed above, Wada et al. meet the limitations of claims 1 and 11-12. However, Wada et al. do not specifically disclose that the image processing means are adapted for determining the amplitudes of spatial frequencies corresponding to typical characteristics of the object from a detected image and wherein said auto-focusing means are adapted for controlling the focusing

means to change the focusing of the monitoring system, the excitation system and the detection system based on the determined image characteristic, for controlling the monitoring the monitoring system to repeatedly image the target region and for controlling the image processing means to determine the image characteristics from a detected image until the determined amplitudes of spatial frequencies are maximally. Olszak discloses a method and apparatus for finding the best-focus position of a scanning array microscope that includes a plurality of optical imaging elements with respective optical axes (pg. 1, paragraph [0002]). They disclose that the best focus may be detected by measuring spatial frequency content and recording the scan position corresponding to maximum frequency content (see Abstract; pg. 6, paragraphs [0045]-[0047]). As can be seen in Figure 8, the in-focus position occurs when the amplitudes of the spatial frequencies are maximal. They disclose that finding the in-focus position can also be found using the contrast parameters of an image, but it is not as discriminating as using the spatial frequency parameters of an image (pg. 6, paragraph [0045]-[0047]. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the invention of Wada et al. to have the image processing means be adapted to determine the amplitudes of spatial frequencies and to have the auto-focusing means adapted for controlling the focusing means, the excitation system, the detection system, the monitoring system and the image processing means to determine the image characteristics from a detected image until the determined amplitudes of spatial frequencies are maximally, as Wada et al. discloses that auto-focusing is performed by acquiring

an image of the best focus and Olszak teaches that an image of the best focus can be determined by measuring the spatial frequency content and determining where the maximum frequency content occurs (pg. 6, paragraphs [0045]-[0047]; see Abstract).

Allowable Subject Matter

6. Claims 3, 5, 10 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach or suggest an analysis apparatus adapted for in vivo analysis of blood, a monitoring system adapted for orthogonal polarized spectral imaging or an excitation system and detection system cooperatively defining a Raman spectroscopy device in combination with the other claimed elements.

Response to Arguments

7. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KATHERINE L. FERNANDEZ whose telephone number is (571)272-1957. The examiner can normally be reached on 8:30-5, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (571)272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric F Winakur/
Primary Examiner, Art Unit 3768